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# Coping through a Disaster: Lessons from Hurricane Katrina

Terri Adams, Leigh Anderson, Milanika Turner, and Jonathan Armstrong

## Abstract

In the face of manmade and natural disasters, first responders are called upon to respond to emergencies, protect the public, and mitigate further disaster consequences. While this is a professional expectation, extreme crisis events can present an inimitable set of challenges for responders, particularly when they are personally impacted by the disaster in which they are expected to respond. The media reports of “abandonment of duty” among police officers in New Orleans during the Hurricane Katrina disaster highlight the need to better understand factors that both challenge and encourage resilience among first responders. This study examines the coping practices that fostered resilience among the officers of the New Orleans Police Department (NOPD) who served as first responders to the Katrina disaster. To gain insight into the experiences and activities of officers during the most stressful parts of the crisis, face-to-face interviews were conducted with officers (N = 57) of varying ranks and divisions. The data demonstrates the dynamic nature of coping in disasters, as well as the range of strategies practiced by first responders in crisis situations.

**KEYWORDS:** resilience, coping, disaster, critical incident, first responders

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## **Introduction**

Professional expectations dictate that first responders should perform their roles as emergency personnel, regardless of the enormity or gravity of the event to which they are expected to respond. However, first responders are susceptible to the same stress induced cognitive processes that are associated with human response to disasters. Research has shown that first responders exposed to critical incidents often suffer acute and chronic post-traumatic stress reactions; but evidence shows that both growth and deficit outcomes often coexist (Tedeschi & Cahoun, 1996; Paton, 2006). While much is known about the after-effects of disasters on first responders, there is currently a dearth of literature examining the coping strategies utilized by emergency personnel in the midst of a critical incident.

In an effort to gain insights into what fosters resilience among first responders during a critical incident, this study examines the coping practices used by New Orleans Police Department (NOPD) law enforcement officers during the Hurricane Katrina disaster. This event presents a unique opportunity to observe the coping practices that fostered resilience among a group of first responders who were personally impacted by the disaster in which they were expected to respond. As other scholars have noted, it is important to identify the mechanisms by which resilience and vulnerability exist during times of distress (Paton, Smith, & Violanti, 2000). This study's examination of the coping strategies identified by a group of first responders provides insights on the mechanisms that can foster resilience during times of extreme crisis.

## **Background**

The Hurricane Katrina disaster presented first responder agencies with an extraordinary set of circumstances. In the City of New Orleans, breaches in the city's levee systems compounded these challenges and resulted in the flooding of over 80 percent of the city (EMAC, 2006). The storm also caused major infrastructure damage, resulting in a failure of the city's communication systems and backup power generators. These conditions made it nearly impossible for first responder agencies to function under normal operating procedures (EMAC, 2006).

The widespread nature of the disaster presented a unique situation for most first responders, as they were personally impacted by the disaster in several ways. After the storm passed over the city, at least 80 officers found themselves stranded in their homes, and some of them even had to be rescued off rooftops (Griffin & Phillips, 2005). Many of the officers had loved ones who were

stranded in the city and were in dire need of being rescued as well. In addition, as a result of the damage caused by the storm, hundreds of officers lost their homes.

The challenges experienced by the officers were multi-faceted, as they had to contend with their personal problems and concerns, as well the tremendous challenges faced by the department. Despite these challenges, NOPD officers, like other first responders, were required to fulfill their professional duties. Although they were expected to perform, it was clear that the duress caused by the disaster impacted officers differently. For example, while most were able to focus on their work as officers, others were not able to perform their duties. Reportedly, 147 officers (nine percent of the police force) abandoned post sometime during the crisis, and two officers committed suicide during the early stages of the disaster (Brinkley, 2006). The incidents of abandonment of duty and suicide suggest that these first responders became particularly vulnerable to the magnitude of the storm and the consequences of its aftermath. Nevertheless, the overwhelming majority of the officers continued to work under the extreme conditions ("Testimony of Warren J. Riley," 2006). These officers faced an extraordinary set of circumstances, including the loss of fellow officers, vehicles and standard equipment, and police headquarters plus three district stations, all coupled with the loss of normal modes of communication. In addition to these challenges, NOPD officers were required to work nonstop for 48 hours. Furthermore, conditions allowed for only a minimal amount of rest thereafter during the early stages of the disaster (personal communication, August, 24, 2006). The unfortunate set of circumstances faced by this first responder community make the NOPD officers ideal subjects for examining coping practices utilized in the face of a critical incident.

### **Related Literature and Theoretical Considerations**

Much of the research examining the impact of disasters on first responders has focused on the disaster's after-effects on emergency personnel. Depression, acute stress, and post-traumatic stress syndrome have been cited as psychological conditions that may develop as a consequence to participation in disaster rescue efforts (Fullerton et al., 2004). The onset of these conditions can occur immediately after a critical incident or up to a year after participating in rescue efforts. Critical Incident Stress Debriefings have been cited as a useful tool for reducing the levels of stress among disaster and rescue workers (Everly, 1996; Hokanson and Bonnita, 2000). However, the validity of this process has been critiqued, and some have questioned whether it effectively reduces stress among first responders (Kenardy et al., 1996; Begley, 2003).

While a significant amount of literature has examined the mediating factors related to the after-effects of disasters on first responders, as previously

noted, research on this community at the height of a critical incident is scant. However, the literature examining the general response patterns to crisis events provides useful insights. Research informs us that, when individuals are exposed physically or emotionally to a threatening situation, they will resort to one of two forms of behavior: maladaptive behavior or adaptive behavior.

The threat arising during a major disaster can cause individuals to fear loss of life, and the confrontation with one's own mortality can lead to negative decision-making and maladaptive behavioral responses (Arndt, Greenberg et al., 1999; Pyszczynski, Greenberg, & Solomon, 1999). The two major maladaptive behavioral responses documented in the disaster literature include panic flight and disaster syndrome. Panic flight is associated with acute fear, loss of control, and non-social and non-rational flight. Quarantelli (1977) found that panic flight is rare, but more likely to occur when: (1) group members believe that specific situations will lead to panic; (2) poor crisis management leads people to feel they are on their own; (3) people feel that their chances for escaping danger are dwindling; (4) people feel the only way to save themselves is through flight; and (5) people feel isolated and in a situation where there is no one else they can rely upon. While there have been reported cases of panic flight, the literature shows that this is a rare response during and immediately after a disaster event.

Disaster syndrome, the other maladaptive behavioral response commonly mentioned in the literature, refers to a cluster of conditions. This syndrome is largely characterized by a state of shock and is typified by docility, disoriented thinking, and lack of sensitivity to cues from the immediate environment (Tierney et al. 2001). Studies have shown that the onset of this behavioral response is rare, but more likely to occur in sudden onset disasters with widespread physical destruction, harrowing injuries, and death (Fritz and Marks, 1954). This condition is typically transient and tends to affect only a small portion of the impacted population.

Research has also shown that, although victims and first responders experience a variety of emotional and physical symptoms of distress during a critical incident, they are generally able to function and develop coping mechanisms to act responsibly during the disaster (Tierney et al., 2001), as people rarely fall apart (Clarke, 2002; Quarantelli, 2001). Thus, research has found that people tend to engage in adaptive, altruistic, and protective behaviors, rather than maladaptive and negative behaviors (Bourque et al, 1993; Johnson, 1988; and Keating, 1982). As Quarantelli (1977) states: "Human behavior under extreme stress is controlled rather than impulsive, uses appropriate means for the perceived ends, and is organized and functional for the most part" (p.6). This is especially true for first responders, as the literature indicates that most are able to function at full capacity in spite of the challenges they face, and abandonment of

duty is rare (Tierney et al., 2006). Therefore, most people are able to adapt to the state of conditions caused by a critical incident.

The adapting and resilience process is made possible through the use of coping mechanisms. Regardless of the nature of the threat, after an individual has been exposed to a critical incident, an appraisal process starts that leads to the use of a coping method. According to Lazarus and Folkman (1984), an individual will then conclude one of the following: that it is a potentially harmful situation, a challenging but controllable situation, or a situation that presents no threat at all. This is regarded as the primary appraisal process. There is a second appraisal process that involves the contemplation of potential responses to the threat. Coping is the process of executing that response (Carver, Scheier, & Weintraub, 1989). The contemplative process will determine which method of coping one will choose. After this assessment, an individual will begin to employ either a problem-focused or an emotion-focused coping method (Lazarus & Folkman, 1984).

Problem-focused coping seeks methods of solving the problem or alleviating the consequences of the crisis (Roussi, Krikeli, Hatzidimitriou, & Koutri, 2007; Schnider, Elhai, & Gray, 2007). It is an effort to act on the source of the stress in an attempt to change the person, the environment, or the relationship between the two (Compas & Epping, 1993). Additionally, it involves elements of planned problem solving and also confrontation.

It has been argued that problem-focused coping predominates when individuals believe that something can be done about a situation, whereas emotion-focused coping predominates when it is believed that the crisis has to be endured (Folkman & Lazarus, 1980). Emotion-focused coping seeks to manage the negative feelings through the regulation of the emotional state (Folkman & Lazarus, 1984; Compas & Epping, 1993). Emotion-focused coping involves denial/avoidance, distraction or minimization, wishful thinking, self-control of feelings, seeking meaning, self-blame, and the expressing or sharing of feelings. It also includes the positive reinterpretation of events and seeking out support (Carver, Scheier, & Weintraub, 1989). Ultimately, emotion-focused coping is geared toward reducing the impact of emotional distress (Carver, Scheier, & Weintraub, 1989).

Consequently, in the midst of a crisis, individuals who exhibit adaptive behaviors will use one of two forms of coping – problem-focused and/or emotion-focused coping practices. While both practices are adaptive coping responses, they exhibit different forms of behavior. Problem-focused coping is rooted in action with the intent to impact the source of stress, and emotion-focused coping is typically demonstrated through psychological soothing and the management of feelings. While different, both forms of coping can lead to resilience in the face of extreme crisis.

## Methodology

The purpose of this study was to gain an understanding of the coping strategies utilized by a group of first responders who worked during a major disaster. It was deemed important to gain this insight by going directly to first responders who had experienced what it was like to work as emergency personnel during a major disaster and by allowing them to tell their personal stories. Hence, this is an exploratory study that includes the analysis of qualitative data collected through face-to-face, open-ended interviews with NOPD officers who were on active duty during the Hurricane Katrina disaster.

Study participants were obtained through announced request for volunteers from the NOPD. Police captains across the City of New Orleans informed their officers of the study, and they were apprised that the interviews would be conducted in private offices at NOPD's training campus and that their anonymity would be ensured. While each officer was asked the same set of questions, the open-ended nature of the interviews allowed the officers to discuss issues on a variety of topics related to the study. Specifically, respondents were asked to describe the coping strategies they used at the height of the disaster. This resulted in the collection of a rich, detailed, in-depth body of information regarding actual experiences, thoughts, feelings, and actions during the disaster.

A total of 57 interviews were conducted in 2007. Data were collected on each officer's history with the department, demographic characteristics, and experiences and activities at the time of the Hurricane Katrina disaster. No prior data were collected on any of the officers, and their names were never used during the interview process. Hence, as previously noted, the officers were insured of their anonymity.

The sample collected included 42 males and 15 females of varying rank, ranging from first level patrol officers to captains. The final analysis includes a qualitative examination of the data coupled with descriptive statistics. The interviews were transcribed by the interviewers and then entered into a data matrix that was used for further analysis. The data matrix was analyzed to identify recurring themes in the interviews, and the common themes that emerged are included in the findings.

While the data provide useful information for the study's research questions, there are a couple of limitations associated with the study. Although the sample collected is representative of the diversity of NOPD, a much larger sample may have provided further insights that could not be obtained from the sample used. Additionally, the responses provided by the study participants were based on their memories of past events related to the Hurricane Katrina disaster. Hence, some of their recall of their experiences may not be exact. Despite the study's limitations, the data collected provide a significant view into the coping

practices that fostered resilience among a group of first responders during one of the nation's worst natural disasters.

## Results

The results section includes a review of the officers' responses to questions about the coping strategies they relied upon during the disaster. Key themes are discussed, and excerpts from the interviews are included to add context to the analysis. When asked what coping strategies were utilized during the Hurricane Katrina disaster, respondents reported relying on a number of useful tactics. Each of the respondents reported using at least one coping method during the height of the disaster. These methods ranged from simply talking to their co-workers to the utilization of a vice (see Appendix A).

The most cited coping method among the officers interviewed was communicating with other police officers. Of the officers interviewed, 30 percent indicated that they communicated with other police officers as a means of venting their feelings. The respondents reported that communicating with other officers allowed them to gain another perspective on their collective problems, and provide support and motivation for one another throughout the height of the disaster. As one respondent stated:

I talked with my fellow officers about the circumstances and we kept each other positive. We focused on the task at hand and this allowed us to do our job.

Another officer echoed this sentiment:

I talked to the older officers for advice and leadership support. Talking to the older officers really helped me cope with the situation. After work, we played cards and talked about the situation and what we needed to do to make it better. This really helped me a lot.

The ability to communicate with other officers provided a platform for psychological recuperation after a long day's work. This facilitated a non-structured method of coping among the officers.

Although talking among fellow officers was cited as the most commonly used coping method, the second most cited coping method used during the Katrina disaster was detachment. Many respondents reported that they remained detached from the magnitude of the disaster throughout the course of the event. Twenty-nine percent of the respondents expressed that they were able to cope

with the magnitude of the event by not focusing on the totality of the situation. One officer reported:

I never really thought about the situation. We just did our jobs and worked the streets. Police officers are trained to serve and protect and that is all we did during the aftermath. No one stopped and thought about the situation. If we did, it would have been difficult to continue to work. When you[re] going through a stressful situation, it is best that you do not think about the situation but only focus on doing the job. We did not have time to think, but only [to] react to the situation.

Another remarked:

I really never stop[ped] and thought about the situation. There were so many people after the storm that needed help and I was one of the people responsible for giving them the help. I guess my mind and body went on automatic pilot for the days following the storm. Everything was happening so fast and we simply reacted to the situation the best we could.... When I look back on the situation, we never slept or ate but worked 20 to 22 hours per day. I think we survived by not thinking about the situation.

Instead of focusing on the actual magnitude of the disaster, officers reported that they directed their attention toward systematically handling the smaller tasks they faced.

An officer stated:

I just did not deal with it. I never stop[ped] to think about my situation and the situation of the city. We just work[ed] day and night helping people and never stop[ped] to assess the situation. My adrenaline was pumping for at least two [days] following the storm. We worked 18 to 20 hours per day at the [Super]dome. I guess if you think about the situation it could stop you from working. We never thought about the situation.

Another officer states:

Everyone was scared but we had a job to do. I think everyone just took it one moment at time and [did] not focus on the massive

problem. My heart was racing and I did not stop to think about the situation. You [can]not cope but you survive the situation. The entire search and rescue thing is just a blur. I cannot tell how I cope[d] or survive[d], but I just did. You do what [you] have to do to make it through the situation. The body goes on automatic pilot and the mind shuts down and you are simply reacting and not thinking. Work helps keep the mind off of the problems and you are able to perform your job. At night, I was too tired to think and just wanted to sleep a few hours.

Focusing on the work at hand, going into automatic pilot, and avoiding thoughts about the magnitude of the disaster appear to be a key survival tactic for some of the first responders interviewed.

Another commonly cited coping practice was the reliance on spiritual practices. Twenty-six percent of the respondents reported using prayer as a coping method. Similarly, 5.3 percent of the officers indicated that their belief or faith in God is what helped them cope with the chaos caused by the disaster. A number of officers commented that their “relationship with the supreme being” and/or “prayer” is what pulled them through the Karina disaster. As one officer stated, “I must say that I prayed a lot during the first few weeks and ask[ed] God for strength. God gave me the strength to continue to work. So, with God’s help, I was able to “cope” with the situation.”

There was a distinction made in the analysis between prayer and belief in God as coping strategies. On one hand, prayer is a communicative process; it is a process that may incorporate introspective reflection and the dispensing of thoughts. On the other hand, faith or belief in God recognizes the presence of a higher, supreme being, which does not necessarily denote a form of communication. Hence, for some officers prayer provided a forum for expressing emotions, while faith did not necessarily facilitate this process. However, faith provided a platform for feeling secure. As one officer stated, “As a result of my faith, I do not have any stress in my life. I know everything happens for a reason and God is the only one that knows the reason.”

Other forms of communication outside of the workplace also appeared significant, and 10.5 percent of the respondents reported that they communicated with either their spouses or other family members to help them cope. The officers who spoke to their spouses acknowledged that this activity was tremendously useful in helping them deal with the enormity of the disaster. One officer remarked, “I talked to my wife a few times a week and she gave me strength.” Another officer commented, “I pray[ed] and talk[ed] things over with my wife. She has been a tremendous support system for me. I would not have made it without my wife’s support and prayers.”

While most of the respondents reported using what can be characterized as positive coping measures, some reported using a vice to cope during the height of the disaster. Ten percent of the officers reported either smoking cigarettes or consuming alcohol as an important coping method. One officer commented that he started smoking to calm his nerves. Meanwhile, nine percent of the respondents said that they used exercise or some form of physical activity to help them cope. Some of the officers reported setting up a makeshift driving range and launching golf balls as an outlet. Additionally, seven percent of the respondents cited their prior military training as being extremely useful in helping them deal with all of the issues that they confronted. One respondent stated that he "...re-adapted to training from military days; life coping skills learned in military kicked in."

A review of the study's findings highlights common threads that characterize coping patterns among NOPD officers during the Katrina disaster. Most of the officers shared the basic need to communicate with others about the issues they faced during the crisis. Many of the study participants indicated that they leaned on their fellow officers and significant others to vent their feelings and/or frustrations, whereas others indicated that they were able to function during the disaster because of their ability to detach from the horrors of the situation. A number of officers also cited reliance on spiritual practices or the belief in a supreme being. Still others cited the dependence on other forms of coping as the ultimate source of their resilience, including the use of vices, physical activity, and recall of previous military training.

## **Discussion**

This study examined the coping practices that fostered resilience among the officers of the NOPD who served as first responders to the Katrina disaster. The study participants interviewed were very candid about their experiences during the Hurricane Katrina disaster, as they described the coping strategies they used during the height of this critical incident. The findings demonstrate the dynamic nature of coping in disasters, as well as the range of strategies practiced by first responders in crisis situations. Several themes emerged from the coping analysis that shed light on the processes that foster resilience among first responders during a disaster. The most frequently cited coping mechanisms were: (1) support from co-workers/communication with other officers; (2) detachment; (3) spiritual practices; (4) communication with significant others; (5) use of vices; (6) physical activity; and (7) recollection of prior military training.

Most of the coping strategies cited by the study participants are illustrative of the patterns of behavior cited in the literature. Prior scholarship (e.g., Lazarus & Folkman, 1984; Compas & Epping, 1993) has indicated that problem-focused

and emotion-focused coping strategies are the most common reactions to extreme stress. The study participants indicated that they employed the use of both as they performed their professional duties in spite of the enormous obstacles they faced. While the study participants cited the use of a variety of coping strategies during the height of the Katrina disaster, the majority of the officers indicated more of a reliance on emotion-focused coping strategies (e.g., sharing of feelings, minimization of the situation, distraction) in the midst of the crisis rather than problem-focused strategies (e.g., planning, direct action). The predominant strategy - reliance on communication with others (e.g., co-workers, significant others) - is related to the expression of emotion and the need for emotional support from others in the midst of a crisis. Hence, this study's findings lend support to the thesis that emotional expression during traumatic events is a beneficial coping mechanism (Stanton, Danoff-Burg, Cameron, & Ellis, 1994). The second most commonly cited coping method - detachment is also an emotion-focused coping strategy.

It should be noted that reliance on a spiritual practice was the third most commonly cited coping practice. This was not surprising, as a growing body of literature reflects the importance of using religion to help people understand and cope with stressful and traumatic life events (Pargament et al., 1988; Pargament et al., 1998; Bjorck & Thurman, 2007). However, the study's findings indicate more of a reliance on emotion-focused coping practices.

The importance of emotion-focused coping strategies over problem-focused coping strategies for the study participants may be a function of the unpredictable and massive nature of the Katrina disaster. This hurricane left massive destruction in its wake, including damage to the infrastructure of the city and the police department. This damage rendered the normal operational functions and practices impossible, and caused a great deal of chaos and confusion among the officers (Brinkley, 2006). As illustrated by one officer's description of his experience, "...everything was in chaos. I could not locate my supervisor.... Basically, it was every man for himself."

It is possible that the erratic and dynamic nature of the disaster hindered the ability of officers to rely on problem-focused coping practices because the officers did not have the luxury of relying on standard equipment and protocols. Problem-focused coping involves elements of planned problem solving and the vision of a possible solution. The inability to use normal modes of communication, coupled with the absence of functional equipment and the inability to use normal operational protocols may have diminished the officers' ability to rely on problem-focused coping strategies during the disaster. This is not to imply that the officers did not engage in problem-focused coping strategies, but the data reveal that emotion-focused coping strategies were most important to these officers during the height of the disaster. It should be noted that most of

these officers were very proactive in their approach to dealing with the disaster, but their resilience was largely rooted in their use of emotion-focused coping strategies. Thus, the findings indicate that emotion-focused coping strategies can be vital to the cultivation of resilience among first responders during a critical incident.

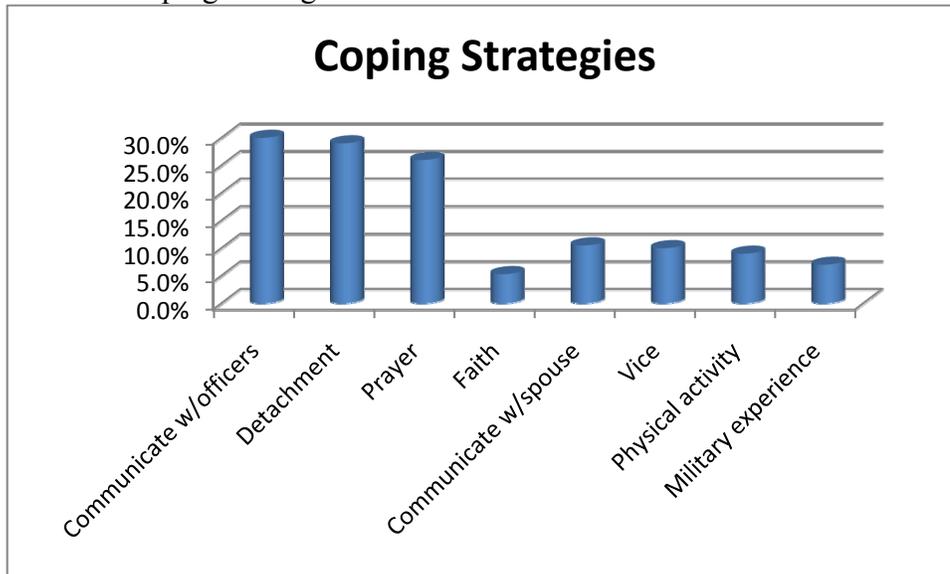
## **Conclusions**

The study provides insights on the coping practices that fostered resilience among officers serving as first responders to a major natural disaster. The information shared by the study participants provides a framework for policy suggestions for pre-disaster training as well as mitigation plans and activities. As previously noted, the most frequently cited coping outlet was the reliance on open communication with fellow officers. Embedded in police culture are ideals of solidarity, brotherhood/sisterhood, and bravery (Skolnick, 1994). These ideals include a variety of axioms that represent these ideals, for example, “watch out for your partner,” “don’t give up on another cop,” and “getting the job done” (Reuss-Ianni, 1983). The development and/or maintenance of the brotherhood/sisterhood cultural ethos in all first responder communities can be an important component to coping through a disaster. The utilization of informal debriefings (e.g., talking with other officers) among first responders also represents an important strategy that further builds solidarity and facilitates open communication.

Another important and useful strategy is the establishment of communication networks that would allow first responders to communicate with their loved ones during a critical incident. This could serve to minimize fear over their safety, allow the responders to concentrate on the work at hand, and foster communication and feelings of connection between first responders and their loved ones. In addition, social support from loved ones can serve as a buffer to stress (Hartsough and Myers, 1985). Emergency managers may also consider infusing military survival training into first responder training to further enhance survival skills and a resilient response to extreme stressors.

## Appendix A

Table 1. Coping Strategies Utilized



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